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ABSTRACT

This paper reports on the National Study of Delinquency Prevention in Schools, the first national study of problem behavior containing information from multiple sources -- principals, teachers, and students. Nationwide, 7% of schools or an estimated 6,451 schools reported to law enforcement personnel at least one incident of physical attack or fight with a weapon during the year. These numbers may not accurately reflect what is occurring and suggestions are giving why principals under-report crime in their schools. One such reason is that principals are reluctant to report minor crimes because of the negative image it projects. In the survey, teachers reported on victimization in schools and on classroom disorder; 27% of teachers reported that student behavior kept them from teaching a fair amount to a great deal of the time. Students reported about their own participation in a variety of delinquent behaviors and drug use and on their experiences of personal victimization. The differences among schools in the levels of problem behavior suggest efforts should focus on schools most in need of improvement. In view of the data showing little convergence between principal's reports and other indicators, it seems unwise to depend on data about behavioral disorders reported by school administrators alone. (JDM)

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Measurement of School Population and Environmental Characteristics

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4 August 2000

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Measurement of School Population and Environmental Characteristics

I will report some of the information we obtained in the National Study of Delinquency Prevention in Schools about the nature and extent of problem behavior in schools. I will also describe our measures of (a) individuals (principals, teachers, students, program implementers) and (b) of school environments including characteristics of the environments themselves (e.g., morale, safety, amenability to program implementation) as well as rates of population characteristics and experiences (e.g., victimization, self-reported delinquent behavior and other student characteristics). I will distinguish between the measurement of individuals and the measurement of school environments, and show information about the reliability of our measures of school environment. I will report on the degree of convergence among measures of school disorder or safety obtained using the reports of teachers, principals, and students. Finally, I will describes the community, school population composition, and school environment correlations of safety, crime and victimization rates, and rates of delinquency and drug use.

The main purpose of our study has been to describe what schools do to prevent problem behavior and promote a safe environment. But in the course of conducting this work, we also sought to measure the amount of problem behavior in schools. The National Study of Delinquency Prevention in Schools is the first national study of problem behavior entailing information from multiple sources – principals, teachers, and students – that has been conducted in decades. Accordingly, I will begin by reporting some of these descriptive data.

One way of estimating the amount of delinquent behavior occurring in schools is to ask principals about it. In our survey of principals in the spring of 1998 we asked respondents to tell us how many crimes of various types had been reported to law enforcement authorities during the 1997-98 school year. The percentages of schools reporting at least one incident for each of five crime categories are displayed in Table 1. Nationwide, 7% of schools or an estimated 6,451 schools reported at least one incident of physical attack or fight with a weapon to law enforcement personnel during the year. Some schools reported more than one such incident, so an estimated 20,285 fights or attacks with a weapon were reported to authorities according to our survey.[1]

Fights or attacks with weapons are most common in middle schools – 21% of middle/junior high schools reported these incidents, for an estimated 7,576 incidents.

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[1]More detailed information is tabulated in the extended report on which I draw, particularly its Appendix H. The appendix tables provide estimated numbers of incidents and numbers of schools with incidents. Estimates are adjusted for non-response and weighted to represent all schools, teachers, principals, or students in the nation. Standard errors or confidence intervals presented are calculated using a re-sampling method (the jackknife) to account for the complex sample design employed.

The percentage of high schools[2] reporting a physical attack or fight involving a weapon (11%) is lower than the percentage for middle schools (21%), but there were more such incidents per high school reporting at least one incident so that the estimated number of fights or attacks with a weapon reported is 9,909 in high schools versus 7576 in middle schools.

Physical attacks without a weapon, theft or larceny, and vandalism are much more common in schools than are the more serious incidents. Forty-four percent to 49% of all schools reported crimes of these types to the authorities. The percentages were again highest for middle schools, although the percentages of middle and high schools reporting at least one incident of vandalism to the police were about the same. Because 72% of middle schools reported at least one attack or fight without a weapon, it is fair to say that some fighting is typical of middle schools.

We are circumspect about principal reports of school crime for four reasons. First, principals naturally want to present their schools in a good light and many principals will be reluctant to notify the police when a crime – particularly one that they may regard as minor – occurs in their school because of the negative image that this may project. According to the National Crime Victimization Survey (Whitaker & Bastian, 1991), only 9% of violent crimes against teenagers occurring in school were reported to the police compared with 37% of such crimes occurring on the streets. This same reluctance may influence principal reports in a survey. Second, in our experience working in schools over the past decades, we have observed that some schools report only a small fraction of incidents involving fights or attacks, alarm pulls, thefts, and vandalism to the police. We are confident, therefore, that in a non-trivial proportion of schools, many or most categories of crime are under-reported. Third, the principal reports show only modest convergence with other measures of school disorder in the present research and in prior research (G. D. Gottfredson & Gottfredson, 1985). Fourth, principal reports are the reports of a single individual so that individual differences in reporting tendency are confounded with the measurement of crime and error is expected to be greater than if there were several persons reporting about the school. Accordingly, the reports of teachers and students to which I will presently turn are of interest.

First, however, it is worth examining some implications of the seemingly small percentages of principals reporting attacks or fights involving weapons for the total number of such incidents. Table 2 shows that we estimate that almost 6,500 schools reported a fight or attack involving a weapon to the police in the 1997-98 school year, and that this amounts to about 20,000 incidents. A very much larger number of fights or attacks not involving weapons are reported to the authorities – we estimate that 42,000 schools reported such an incident in the 97-98 school year for a total of about 536,000 incidents.

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[2]High schools include all schools serving the highest grade levels. Some of these are comprehensive schools serving students in grades K-12. Others are vocational schools.

In secondary schools, teachers were asked to report about their own experiences of victimization in the school, about their views on the safety of the school, and about classroom disorder.

The percentages of teachers reporting each of several kinds of victimization in school are shown in Table 3. Many teachers – 42% overall – report having received obscene remarks and gestures from a student; 28% experienced damage to personal property worth less than $10; 24% had property worth less than $10 stolen; 21% were threatened by a student; 14% experienced damage to personal property worth more than $10; 13% had property worth more than $10 stolen; 3% were physically attacked. Less than 1% of teachers reported having been physically attacked and having to see a doctor or having had a weapon pulled on them.

Secondary school teachers were also asked to report about classroom disorder and the conduct of students in their schools. 27% of teachers report that student behavior keeps them from teaching a fair amount or a great deal of the time.

Students were asked to report about their own participation in a variety of kinds of delinquent behavior and drug use. Interpersonal violence is common in middle schools. Table 4 shows that 32% of high school students and 41% of middle school students reported having hit or threatened to hit other students in the past year. Damaging or destroying school property is also relatively common, with about 16% of secondary school students reporting having engaged in this behavior. Whereas middle school students reported interpersonal violence more often than high school students, this pattern was reversed for going to school when drunk or high on drugs: 9% of middle school students and 17% of high school students reported having done so. About 5% of secondary school students say they have hit or threatened to hit a teacher.

Students were also asked to report on their experiences of personal victimization. The most common form of victimization experienced by students according to these reports is minor theft (of items worth less than $1), with 47% of students reporting such theft in the current school year. A larger percentage of middle school students (54%) than of high school students (44%) reported experiencing a minor theft. Victimization by theft of items worth more than $1 was also reported by a higher percentage of middle school students (49%) than of high school students (42%).

Almost one in five students reported being threatened with a beating, and again this was a more common experience for middle school students (22%) than for high school students (16%). Victimization by physical attack was reported by 19% of middle school students and 10% of high school students. Having things taken by force or threat of force was also more common for middle school students than high school students. About 5% of secondary students report having been threatened with a knife or gun.

Summary of nature of problem behavior in schools. Minor forms of problem behavior are common in schools. For example, 27% of teachers report that student

behavior keeps them from teaching a fair amount or a great deal of the time. This minor misconduct can be a serious problem because it interferes with efforts by schools to pursue their mission to conduct education. The percentage of teachers per school reporting that student behavior keeps them from teaching at least a fair amount ranges from 0% to 100%. In a quarter of schools, 42% or more of teachers report that student behavior keeps them from teaching at least a fair amount.

Serious forms of problem behavior such as physical attacks or fights involving a weapon, robberies, or threats involving a knife or a gun occur less frequently than the more pervasive minor kinds of student misconduct. But they occur frequently enough that they are also clearly major problems. There is great variability among schools in levels of problem behavior. Some urban middle schools, in particular, experience much more disorder than do other schools.

Measures

I will shift now to a discussion of school and prevention program characteristics. In her earlier talk, Liz Jones called your attention to our hypotheses about characteristics of schools and of prevention activities that are linked to the quality of program implementation. Only one of these pertained to the level of disorder in schools. In a few moments, Denise Gottfredson will be describing how we measured quality of prevention activity. I will describe how we devised measures to examine our hypotheses about predictors of quality of program implementation. We required measures of organizational capacity for program implementation, leadership style, budget support, organizational support for implementation, program structure, integration with school operations, implementation feasibility, and levels of problems in the schools.

Table 5 shows information about how we measured what we call organizational capacity for program implementation. In some cases we had measures developed in earlier research. For example, we measured morale using the 11-item Morale scale from the Effective School Battery (G. D. Gottfredson, 1999). High scoring schools on this scale are characterized by esprit de corps; low scoring schools are demoralized and people do not expect to be able to depend on others to help with improvement. Organizational focus measures the extent to which the organization has clear goals and makes expected behavior and what is rewarded clear. Our Organizational Focus scale was adapted from a scale devised by G. D. Gottfredson and Holland (1996). Other organizational capacity measures were devised for the present research. We attempted to obtain measures related to hypotheses from multiple sources if possible. So, for example, the Morale and Organizational Focus scales, based on the aggregated reports of schools' teachers, is supplemented by the newly devised School Amenability to Program Implementation scales based on both principals' and activity coordinators' reports.

With a variable such as school morale, our concern is with the measurement of

school environments, not individuals. One can examine the homogeneity of the Morale scale at the individual level, of course. Individual-level α coefficients are shown in the table. But these coefficients provide evidence about the reliability with which individual differences are measured. Individual differences – reliable or unreliable – within environments are by definition error in the measurement of organizational units (schools). Reliability with which school environments are measured is estimated by using a hierarchical linear modeling (Bryk & Raudenbush, 1992) technique to estimate the size of intraclass correlations (ρ):

$$\hat{\rho} = \hat{\tau}/(\hat{\tau} + \hat{\sigma}^2), \qquad (1)$$

where $\hat{\sigma}^2$ is the estimated variance of school means and $\hat{\tau}$ is the estimated variance of individual reports. This is a kind of reliability estimate – an estimate for the report of a single individual about the environment. It is possible to estimate a school-level reliability, λ:

$$\hat{\lambda}_j = \hat{\tau}/(\hat{\tau} + \frac{\hat{\sigma}^2}{n_j}), \qquad (2)$$

where n_j is the number of individuals reporting in school j. The larger n_j the greater the reliability. Because n_j differs from school to school, $\hat{\lambda}_j$ differs from school to school. In presenting results for the reliability of measures, the table shows the average of J school-level reliabilities:

$$\hat{\lambda}_. = \sum \hat{\lambda}_j / J \quad . \qquad (3)$$

For the morale scale, the intraclass correlation ($\hat{\rho}$) is .28, and because we tried to include all teachers in a school in surveys there are many informants about school morale producing an average school-level reliability ($\hat{\lambda}_.$) of .88. In short, morale is pretty reliably measured at the school level.

In the case of variables that depend upon principal report, because there is only one principal in each school, individual and school differences are not measured separately. The table reports only alpha coefficients. The written version of this paper shows three pages of psychometric information for all of the hypothesized predictors. There are too many to review orally. Instead, I will illustrate the approach we took to devising measures for some hypothesized predictors of quality that at first seemed very difficult to measure in questionnaire surveys.

Table 6 illustrates the Quantity and Quality of Training in Discipline scale. To devise this measure, we assumed that training that is more extensive and that includes follow-up is better than brief training with no follow-up. And we assumed that training that is clear, presents principles to be followed, is illustrated with examples, allows the persons trained to practice applying the principles, gives trainees feedback on performance, and that anticipates and helps trainees cope with potential obstacles is better than training that lacks these features.

The approach to measuring other potential predictors of program quality was similar. To gauge supervision and monitoring, we asked implementers if they were supervised and if their records were reviewed. To gauge whether activities were regular parts of the school routine, we asked such things as whether the individuals delivering the service or program are regular school employees, whether the activity occurs during the regular school day, and so on.

Before the next speaker tells you about the measurement of implementation quality and which of our hypothesized predictors survived empirical scrutiny, I will touch on one more measurement issue that we plan to explore more in coming months – the degree of convergence between the reports of different individuals or groups about the same or similar school characteristics. Table 7 shows correlations among alternative measures of school safety or problem behavior. Notice that the school crime rate (i.e., the natural log of the school crime rate) based on principals' accounts of the number of crimes they reported to the police relative to school enrollment does not have large convergent correlations with reports of problems by teachers and students. Teacher and student reports of school safety show better convergence with each other(r = .45), and teachers' reports of victimization and classroom orderliness and students' perceptions of safety also show good convergence (correlations of -.62 and .68). One lesson from Table 7 is that it is probably not wise to rely upon a single source of information about a school (or a program). In other analyses, we observed that there is very little convergence between the principals' characterization of their own leadership emphases and faculties' characterizations of the administrative leadership in their schools. Faculty ratings generally appeared to have more validity against other criteria.

Finally, Table 8 shows some community and school correlates of school crime rates and measures of safety, victimization, and problem behavior based on principal, teacher, and student reports. The degree to which a community is characterized by a factor we call Concentrated Poverty and Disorganization – based on such 1990 census characteristics (for the zip code area of the school) as percentage of families with children that are female headed and indicators of poverty – has substantial negative correlations with student and teacher reports of school safety and a moderate postive correlation with teacher victimization rate. But this community characteristic has only small correlations with crime rates based on principal reports or student reports of personal victimization. As we observed in earlier research (G. D. Gottfredson & Gottfredson, 1985), school size is moderately associated with school disorder. Schools with high percentages of students Black evidently have less orderly classrooms and both teachers and students view the schools as less safe.

The large amount of variability among schools – particularly urban middle schools – in levels of problem behavior suggest focusing efforts to promote safety on schools most in need of improvement. Fifteen years ago we recommended monitoring school safety, perhaps through the mechanism of periodic surveys, to identify schools where intervention to improve safety is indicated. That recommendation still seems indicated today. In view of the data showing little convergence between principals' reports and

other indicators, it seems unwise to depend on data about behavioral disorder reported by school administrators alone.

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Table 1

Percentage of Schools In Which One or More Incidents of Crime Was Reported to Law Enforcement – 1997-98 School Year

	Physical attack or fight with a weapon		Robbery		Physical attack or fight without a weapon		Theft or larceny		Vandalism	
Group	%	*SE*	%	*SE*	%	*SE*	%	*SE*	%	*SE*
All schools	6.7	.9	5.9	.9	44.2	2.4	44.4	2.4	49.2	2.4
Level										
Elementary	2.2	1.0	2.8	1.0	34.2	3.3	34.7	3.3	39.3	3.4
Middle/Junior	21.0	2.8	16.7	2.4	71.8	3.4	67.0	3.5	67.8	3.5
High	10.6	2.2	8.5	2.1	55.5	4.1	57.7	4.1	65.1	4.0
Location										
Rural	4.7	1.2	3.1	1.0	40.1	3.6	44.1	3.7	46.8	3.7
Suburban	7.4	1.6	9.8	2.5	44.8	4.4	42.6	4.2	53.3	4.4
Urban	9.4	2.1	7.4	1.6	50.9	4.7	46.7	4.6	49.6	4.7
Auspices										
Public	8.5	1.2	7.3	1.1	50.3	2.7	50.0	2.6	56.1	2.6
Private or Catholic	.0	–[a]	1.0	.7	20.6	4.8	23.9	4.9	24.1	4.9

[a] No incident of physical attack or fight with a weapon was observed in the small ($n = 94$) number of private or Catholic schools in the sample.

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Table 2

Number and Percentage of Schools In Which the Principal Reported That One or More Incidents of Physical Attack or Fight With Weapon Had Been Reported to Law Enforcement, and Total Number of Such Incidents – 1997-98 School Year

	Schools with incident		Schools with incident		Total incidents	
Group	*N*	*SE*	%	*SE*	*N*	*SE*
All schools	6451	897	6.7	.9	20285	5130
Level						
Elementary	1347	604	2.2	1.0	2801	1607
Middle/Junior	2553	367	21.0	2.8	7576	2290
High	2550	552	10.6	2.2	9909	4300
Location						
Rural	2167	576	4.7	1.2	9919	4618
Suburban	1787	392	7.4	1.6	5289	1840
Urban	2496	568	9.4	2.1	5077	1273
Auspices						
Public	6451	897	8.5	1.2	20285	5130

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Table 3

Percentage of Teachers Reporting Personal Victimization This Year in School, by School Level and Location

Type of victimization and location	Middle/Junior[b] %	95% CI	*n*	High[c] %	95% CI	*n*	Total[d] %	95% CI	*N*
Received obscene remarks or gestures from a student[a]									
Rural	45	41-49	2138	39	34-44	1728	40	37-44	3866
Suburban	38	33-44	2729	41	35-48	1911	40	36-44	4640
Urban	56	52-60	2530	42	36-47	2258	47	43-51	4788
Total	46	43-48	7397	40	37-43	5897	42	40-44	13294
Damage to personal property worth less than $10.00[a]									
Rural	28	26-31	2139	27	24-29	1728	27	25-29	3867
Suburban	29	26-32	2728	23	20-26	1909	26	24-28	4639
Urban	35	33-38	2532	26	24-29	2256	30	28-32	4788
Total	31	29-32	7399	26	24-27	5895	28	26-29	13294
Theft of personal property worth less than $10.00[a]									
Rural	27	25-30	2133	21	19-24	1727	23	21-25	3860
Suburban	25	21-28	2726	21	18-24	1909	23	20-25	4635
Urban	33	30-36	2527	23	20-26	2257	27	25-29	4784
Total	28	26-30	7386	22	20-23	5893	24	23-25	13279

continued . . .

Table 3 *(continued)*

Percentage of Teachers Reporting Personal Victimization This Year in School, by School Level and Location

Type of victimization and location	Middle/Junior[b] %	95% CI	*n*	High[c] %	95% CI	*n*	Total[d] %	95% CI	*N*
Was threatened in remarks by a student[a]									
Rural	22	19-25	2136	18	15-21	1729	19	17-22	3865
Suburban	19	15-23	2728	21	16-25	1913	20	17-23	4641
Urban	31	27-36	2531	23	19-27	2258	26	23-29	4789
Total	24	22-26	7395	20	18-22	5900	21	20-23	13295
Damage to personal property worth more than $10.00									
Rural	13	11-15	2139	12	10-14	1728	12	11-14	3867
Suburban	13	11-15	2730	13	10-15	1913	13	11-14	4643
Urban	18	16-20	2533	16	14-19	2260	17	15-19	4793
Total	14	13-16	7402	14	12-15	5901	14	13-15	13303
Theft of personal property worth more than $10.00									
Rural	11	9-14	2139	11	9-13	1727	11	10-13	3866
Suburban	10	8-12	2728	14	11-16	1911	12	11-14	4639
Urban	17	15-19	2532	16	13-19	2258	16	14-18	4790
Total	13	11-14	7399	13	12-14	5896	13	12-14	13295

continued . . .

Table 3 *(continued)*

Percentage of Teachers Reporting Personal Victimization This Year in School, by School Level and Location

Type of victimization and location	Middle/Junior[b] %	95% CI	*n*	High[c] %	95% CI	*n*	Total[d] %	95% CI	*N*
Was physically attacked but not seriously enough to see a doctor[a]									
Rural	3.1	2.36-4.03	2138	1.8	1.18-2.57	1727	2.2	1.66-2.76	3865
Suburban	2.5	1.58-3.58	2730	2.3	1.58-3.25	1910	2.4	1.81-3.07	4640
Urban	6.7	5.31-8.28	2530	3.1	2.20-4.18	2257	4.5	3.85-5.40	4787
Total	4.0	3.34-4.67	7398	2.3	1.83-2.79	5894	2.9	2.52-3.31	13292
Was physically attacked and had to see a doctor[a]									
Rural	.7	.36-1.20	2139	.4	.18- .80	1729	.5	.28- .76	3868
Suburban	.7	.46-1.16	2728	.7	.40-1.26	1913	.7	.49-1.05	4641
Urban	2.1	1.40-2.89	2531	.8	.52-1.35	2258	1.3	.96-1.74	4789
Total	1.1	.85-1.44	7398	.6	.43- .84	5900	.8	.63- .97	13298
Had a weapon pulled on me									
Rural	.4	.23- .82	2139	.7	.34-1.20	1728	.6	.34- .96	3867
Suburban	.3	.15- .61	2728	.4	.14- .80	1913	.3	.18- .58	4641
Urban	.7	.43-1.10	2532	.7	.35-1.22	2260	.7	.44-1.02	4792
Total	.5	.34- .65	7399	.6	.39- .87	5901	.6	.40- .73	13300

Note. 95% CI = 95% confidence interval. *N* = unweighted number of responses.

[a] Victimization rate is significantly ($p < .02$) higher in middle/junior high schools than in high schools.

[b] For middle/junior high schools, the urban rate is significantly ($p < .01$) higher than the rural rate for all items except having a weapon pulled. For middle/junior high schools none of the rural-suburban differences are significant.

[c] For high schools, the urban rate is significantly ($p < .02$) higher than the rural rate for damage to property worth more than $10, theft of property worth more than $10.

[d] For both levels combined, the urban rate is significantly ($p < .02$) higher than the rural rate for threats, serious attacks, minor theft, obscene remarks, minor attack, major theft, and major property damage. The urban rate is significantly ($p < .02$) higher than the suburban rate for all items except having a weapon pulled.

Table 4

Percentage of Students Reporting Personal Participation in School Delinquency and Drug Use in Past Year, by School Level and Location

	Middle/Junior			High			Total		
Self-reported behavior and location	%	95% CI	*n*	%	95% CI	*n*	%	95% CI	*N*
Purposely damaged or destroyed property belonging to a school									
Rural	14.3	12.4-16.1	3531	16.1	13.4-18.8	3459	15.6	13.6-17.5	6990
Suburban	17.5	15.4-19.5	2892	14.7	12.2-17.2	2011	15.9	14.2-17.6	4903
Urban	16.6	14.5-18.8	2801	15.5	11.8-19.2	1269	15.8	13.3-18.4	4070
Total	16.2	15.0-17.4	9224	15.5	13.8-17.2	6739	15.8	14.6-17.0	15963
Hit or threatened to hit a teacher or other adult in school									
Rural	5.1	3.9-6.2	3534	5.4	3.9-7.0	3460	5.3	4.2-6.5	6994
Suburban	4.0	2.9-5.1	2904	3.6	2.3-4.8	2011	3.8	2.9-4.6	4915
Urban	7.8	6.0-9.6	2802	4.3	2.4-6.2	1273	5.5	4.0-7.0	4075
Total	5.6	4.8-6.4	9240	4.6	3.6-5.5	6744	4.9	4.2-5.6	15984
Hit or threatened to hit other students									
Rural	43.1	40.1-46.1	3527	36.4	33.2-39.7	3456	38.4	35.8-41.0	6983
Suburban	39.4	36.2-42.6	2891	27.4	23.6-31.2	2008	32.4	29.4-35.5	4899
Urban	40.8	37.4-44.1	2796	31.5	26.6-36.5	1273	34.6	30.7-38.4	4069
Total	41.0	39.1-42.8	9214	32.3	29.9-34.7	6737	35.3	33.5-37.1	15951
Stolen or tried to steal something at school, such as someone's coat from a classroom, locker, or cafeteria, or a book from the library									
Rural	8.1	6.7- 9.4	3532	9.3	7.5-11.0	3457	8.9	7.6-10.2	6989
Suburban	10.0	8.6-11.4	2900	7.7	5.9- 9.5	2008	8.7	7.4- 9.9	4908
Urban	9.3	8.1-10.6	2802	9.2	7.9-10.5	1273	9.2	8.3-10.2	4075
Total	9.2	8.4-10.0	9234	8.8	7.9- 9.8	6738	9.0	8.3- 9.6	15972

continued . . .

Table 4 (*continued*)

Percentage of Students Reporting Personal Participation in School Delinquency and Drug Use in Past Year, by School Level and Location

	Middle/Junior			High			Total		
Self-reported behavior and location	%	95% CI	*n*	%	95% CI	*n*	%	95% CI	*N*
Gone to school when drunk or high on some drugs									
Rural	10.4	8.4-12.3	3528	16.4	13.3-19.6	3456	14.6	12.4-16.9	6984
Suburban	7.7	6.2- 9.2	2900	16.0	12.6-19.2	2009	12.4	10.5-14.4	4909
Urban	10.5	8.3-12.6	2795	19.1	14.8-23.4	1273	16.3	13.3-19.2	4068
Total	9.4	8.3-10.5	9223	17.2	15.2-19.3	6738	14.5	13.1-16.0	15961

Note. 95% CI = 95% confidence interval for weighted percentages. *N* = unweighted number of respondents.

Table 5
Measures of Hypothetical Predictors of Program Quality

Category and predictor scale or item name	Source	*N* items	α^a	$\hat{\lambda}_1$
Organizational capacity				
Morale	TQ	11	.81	.88
Organizational focus	TQ	16	.94	.86
School amenability to program implementation	PQ2	9	.76	–
School amenability to program implementation	AQ	11	.81	.69
Faculty-administration obstacles to implementation	PQ1	12	.76	–
School capacity for program development	PQ1	6	.55	–
Open identification of problems	PQ1	3	.55	–
Teacher-principal communication	PQ1	2	.59	–
Teacher turnover	PQ1	1[b]	–	–
Program or activity staff turnover	AQ	1	–	.43
School size	PQ1	1	–	–
Leadership and staff competencies, traits, past accomplishments				
Administrator leadership	TQ–	12	.84	.88
Leadership behavior	PQ2	19	.90	–
Accomplishment record of principal	PQ2	7	.70	–
Accomplishment record of activity coordinator	AQ	12	.84	–
Conscientiousness of principal	PQ2	20	.90	–
Conscientiousness of activity coordinator	AQ	20	.91	–
Non-delegation of responsibility by principal	PQ1AD	1[c]	–	–
Broad principal span of control	PQ1AD	1[d]	–	–
Budget				
Funding for program assured next year	AQ	1	–	.40
Budget control over project activities	AQ	1	–	.44
Organizational support				
Amount of training in classroom management/instructional methods	TQ	1	–	.63
Amount of training in preventing student problem behaviors	TQ	1	–	.70
Quality and quantity of training in discipline	PQ2	8	.91	–
Amount of training in activity/program	AQ	3	.67	.52

continued . . .

Table 5 *(continued)*
Measures of Hypothetical Predictors of Program Quality

Category and predictor scale or item name	Source	*N* items	α^a	$\hat{\lambda}_1$
Quality of training in activity/program	AQ	6	.87	–[c]
Monitoring of conformity of discipline practices with policy	PQ2	1	–	–
Principal's performance appraisal depends on discipline management	PQ2	1	–	–
Supervision or monitoring of implementation of program or activity	AQ	3	.55	.49
Principal support for program or activity	AQ	1	–	.44
Program structure				
Standardization	AQ	5	.72	.45
Integration into normal school operations				
Planning	TQ	9	.62	.84
Local responsibility (school insiders) for program initiation	AQ	14	.82	.50
School district responsibility for program initiation	AQ	4	.77	.57
Variety of information sources used in selection of discipline practices	PQ2	7	.68	–
Variety of information sources used to select program or activity	AQ	7	.70	.51
Amount of provider's job related to program or activity	AQ	1	–	.24
Activity is part of regular school program	AQ	1	–	.27
Provider is full-time	AQ	1	–	.40
Paid workers deliver program or activity	AQ	1	–	.44
Local initiative versus Safe and Drug Free Schools and Communities coordinator initiative	PQ2	1	–	–
Local development of discipline practices	PQ2	5	.68	–
Program or activity feasibility				
Obstacles to program implementation	AQ	12	.74	.44
Activity occurs during the school day[f]	AQ	1	–	.52
Activity occurs in the early evening (6:00 - 9:00 p.m.)[f]	AQ	1	–	.59
Level of disorder/problem behavior				
School safety, teacher perspective	TQ	8	.94	.75
School safety, student perspective	SQ	13	.80	.86

continued . . .

Table 5 *(continued)*
Measures of Hypothetical Predictors of Program Quality

Category and predictor scale or item name	Source	N items	α[a]	$\hat{\lambda}_.$
Classroom orderliness	TQ	14	.92	.79
Teacher victimization	TQ	8	.61	.72
Student victimization	SQ	7	.61	.68
Selectivity	PQ1	5	.86	–
Problem student magnet	PQ1	3	.81	–
School crime	PQ2	5	.68	–
Gang problems[g]	PQ2	2	.38	–
Last-year variety drug use	SQ	16	.87	.88
Delinquent behavior	SQ	13	.84	.78

Note. α = alpha reliability for individual-level measure. $\hat{\lambda}_.$ = estimated reliability of school-level aggregate; calculated from unweighted data excluding schools with fewer than 10 students (or teachers) unless 70% of sampled students (teachers) responded. PQ1 = phase 1 principal questionnaire, PQ2 = phase 2 principal questionnaire, AQ = activity coordinator questionnaire, TQ = teacher questionnaire, SQ = student questionnaire, PQ1AD = phase 1 principal questionnaire activity detail booklet.

[a] Value shown for PQ2 is the median alpha for elementary and secondary schools.

[b] Ratio of new teachers this year relative to the total number of teachers. Although the calculation of this item is based on responses to two questions, there is only a single indicator of turnover in the principals' reports.

[c] Percentage of named prevention activities for which the principal listed him/herself as the only person who can provide information.

[d] Percentage of named prevention activities for which the principal listed him/herself as one of the individuals who can provide information.

[e] Questions about quality of training were not answered by respondents who indicated that there was none. Too few schools had multiple responses on training quality to calculate dependable reliability estimate for the school level.

[f] Respondents indicated when the activity occurred using a list of possibilities, including weekends and immediately after school. Only the two time intervals listed here were empirically related to program quality.

[g] Alphas differed greatly for elementary and secondary schools (elementary school principals tended to report few gang problems). Elementary α = .23, secondary alpha = .54.

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Table 6
Item Content of Quality and Quantity of Training in Discipline Scale

How much initial in-service training in school discipline procedures was completed by administrators, staff, or faculty who manage discipline in this school?
The presentation was clear and organized.
Principles to be followed were presented.
Principles were illustrated with examples.
Participants practiced applying the principles.
Participants received feedback on their performance in applying the principles.
Participants' questions and concerns about possible obstacles in applying the principles were addressed.
How much formal follow-up training on school discipline was completed by the average individual who manages discipline?

Note. Principals were asked about the training in school discipline completed by administrators, faculty or staff who manage discipline in the school. For the first item above, possible responses were "none," "short demonstration or orientation only," "one-half day," "one full day," "2 or 3 days," and "4 days or more." For the next six items, possible responses were "yes" or "no." For the last item, possible responses were "none," "one occasion," "two occasions," and "three or more occasions."

Table 7

Correlations Among Measures of School Problem Behavior Based on Principal, Teacher, and Student Reports

	Principal reports		Teacher reports				Student reports		
Measure	Gang problems	In school crime rate	Classroom order	Victimization	School Safety	Last-year variety drug use	School safety	Self-report delinquency	Victimization
Principal reports									
Gang problems		.15	-.10	.16	-.16	.13	-.23	.16	.02
In school crime rate[b]	.15		-.21	.26	-.22	.17	-.19	.24	.09
Teacher reports									
Classroom order	-.10	-.21		-.77	.63	-.02	.68	-.31	-.34
Victimization	.16	.26	-.77		-.72	.19	-.62	.36	.27
School safety	-.16	-.22	.63	-.72		-.19	.45	-.28	-.16
Student reports									
Last-year variety drug use	.13	.17	-.02	.19	-.19		-.14	.77	.03
School safety	-.23	-.19	.68	-.62	.45	-.14		-.44	-.51
Self-report delinquency	.16	.24	-.31	.36	-.28	.77	-.44		.39
Victimization	.02	.09	-.34	.27	-.16	.03	-.51	.39	

Note. Unweighted correlations.

Minimum pairwise numbers of schools on which correlations are based are as follows:

	Principal	Teacher	Student
Principal	568	331	258
Teacher	331	402	293
Student	258	293	310

[a] Index of school crimes reported to the police, trimmed.

[b] ln (total crime rate + 1).

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Table 8

Correlations Between Measures of School Safety or Problem Behavior and Community and School Characteristics – Secondary Schools

Measure of safety or problem behavior	Community			School			
	Concentrated poverty & disorganization	Urbani-city	Immigration & crowding	Enroll-ment	% students Black	% students Hispanic	*n* (range)
Principal reports							
Gang problems	.16**	.26**	.26**	.14**	.13**	.40**	(469-624)
School crime	.04	.13**	.17**	.45**	.02	.16**	(427-575)
ln crime rate	.07	.00	.09*	.14**	.01	.08	(427-575)
Teacher reports							
Classroom order	-.29**	.09	-.12*	-.05	-.50**	-.10	(315-404)
Victimization	.35**	-.02	.23**	.15**	.41**	.24**	(315-404)
School safety	-.25**	-.02	-.14**	-.26**	-.30**	-.16**	(314-402)
Student reports							
Last-year variety drug use	.09	-.19**	.06	-.20**	-.03	.00	(257-310)
School safety	-.42**	.04	-.21**	-.08	-.52**	-.19**	(257-310)
Self-reported delinquent behavior	.16**	-.11	.06	-.21**	.15*	-.01	(257-310)
Victimization	.08	-.07	.03	-.10	.02	.00	(257-310)

Note. Enrollment is based on principal report in the phase 1 survey if available; otherwise from the Market Data Retrieval data. School ethnic composition is from the Common Core of Data.